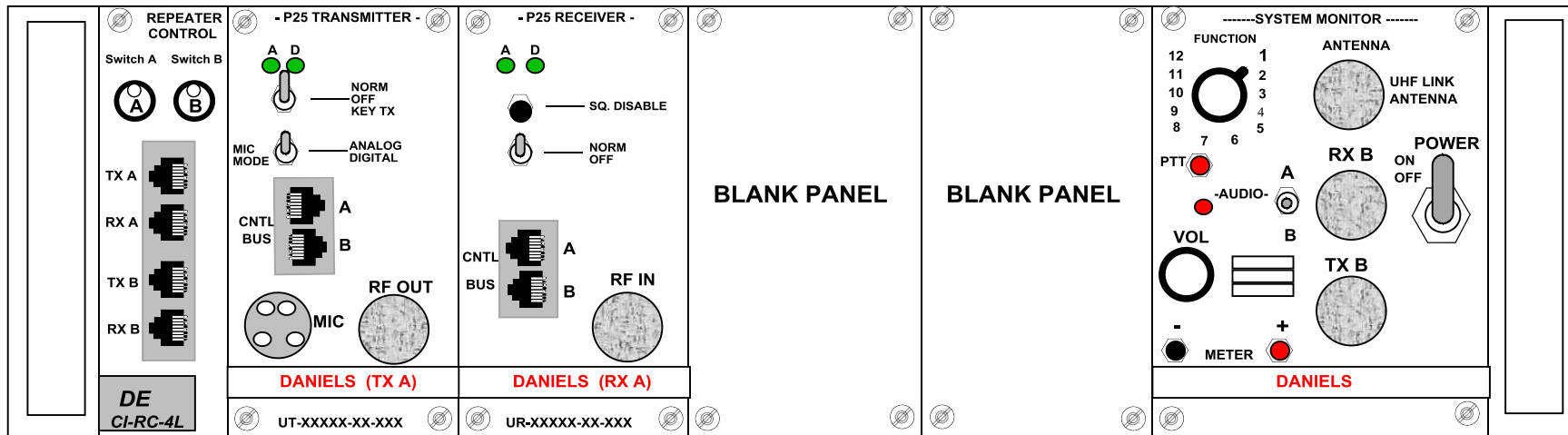




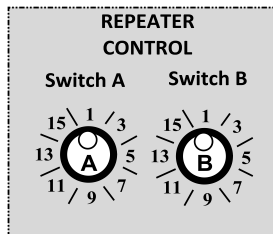
4248 - UHF REPEATER SWITCH SETTINGS



4248 - UHF REPEATER CONFIGURATION:

1. Connect the power cable to the batteries using the provided **POLARIZED** fused cable.
2. Turn the **Power** Switch to the "ON" position on the System Monitor.
3. Keep the power switches on both the **TX A** and **RX A** modules in "NORM" position.
4. Keep the **Mic Mode** on the **TX A** in the "ANALOG" position.
5. Keep the **A/B Audio Select** Switch on the System Monitor Module at the center position.

Note: No tones are available on the UHF Repeater.

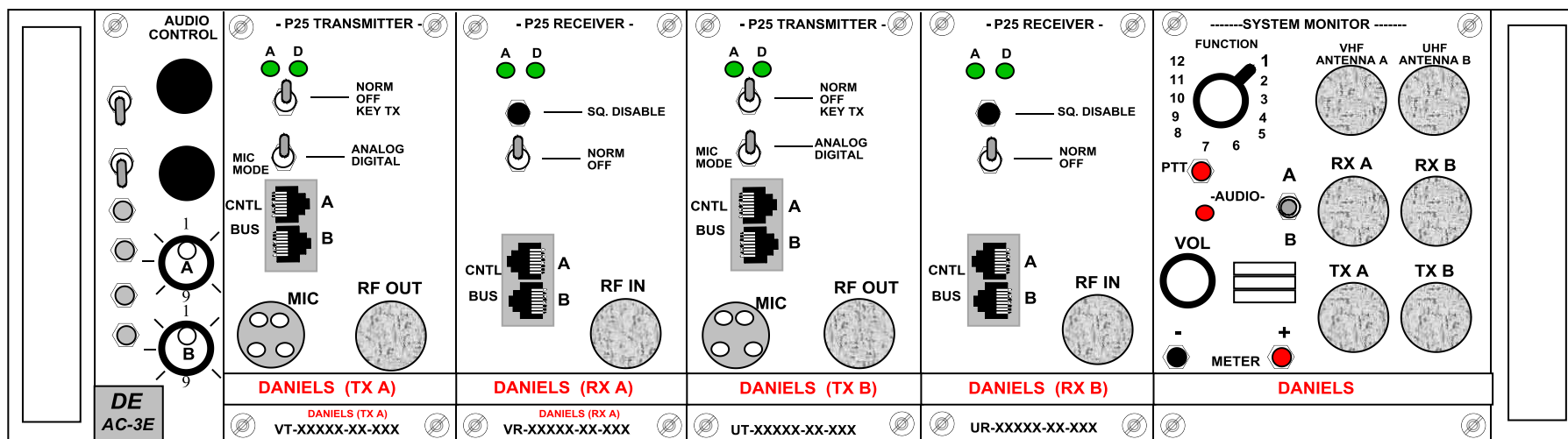


Close-Up View
Switch A, Switch B
CI-RC-4L Card

NIRSC/NIICD UHF Repeater Switch Settings (4248- UHF Repeater Configuration)	
Designed by:	NIICD
Drawn by:	NIICD/J. Lopez
Revised Date:	March, 2015



4281 - CROSSBAND LINK SWITCH SETTINGS



4281 Crossband Link: (Link Configuration)

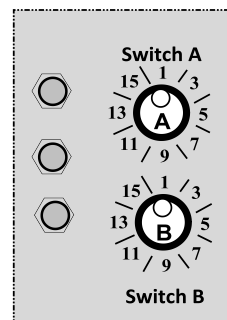
1. Connect the power cable to the batteries using the provided **POLARIZED** fused cable.
Note: Once power cable is connected, all modules are receiving voltage, but each module still needs to be individually turned on to operate.
 2. Turn each module "ON" by keeping the power switches on the **TX A**, **RX A**, **TX B**, and **RX B** in the "NORM" position.
 3. Keep both **CTCSS** switches, located on the AC-3E module, in the "OFF" (down) position.
 4. Keep both **Mic Mode** on **TX A** and **TX B** in the "ANALOG" position.
 5. Keep the **Audio Select** Switch on System Monitor Module in the center position, to disable the internal speaker.
 6. Select the assigned **VHF** frequency for both the **TX A** and **RX A** modules using the 16-position rotary **Switch A** on the AC-3E Module. *(Switch A, VHF Frequency Select)*
 7. Select the assigned **UHF** frequency for both the **TX B** and **RX B** modules using the 16-position rotary **Switch B** on the AC-3E Module. *(Switch B, UHF Frequency Select)*
- Note: The Communications Duty Officer (CDO) will assign both the VHF and UHF frequencies based on the incident system design.*

Switch A - VHF Frequency List

- Position 1 - C1 RPTR
- Position 2 - C2 RPTR
- Position 3 - C3 RTPR
- Position 4 - C4 RPTR
- Position 5 - C5 RPTR
- Position 6 - C6 RTPR
- Position 7 - C1 RPTR
- Position 8 - C1 SIMPLEX
- Position 9 - C2 SIMPLEX
- Position 10 - C3 SIMPLEX
- Position 11 - C4 SIMPLEX
- Position 12 - C5 SIMPLEX
- Position 13 - C6 SIMPLEX
- Position 14 - C1 SIMPLEX
- Position 15 - Special Use 1
- Position 16 - Special Use 2

Switch B - UHF Frequency List

- Position 1 - L1 RPTR
- Position 2 - L2 RPTR
- Position 3 - L3 RTPR
- Position 4 - L4 RPTR
- Position 5 - L5 RPTR
- Position 6 - L6 RTPR
- Position 7 - L7 RPTR
- Position 8 - L1 SIMPLEX
- Position 9 - L2 SIMPLEX
- Position 10 - L3 SIMPLEX
- Position 11 - L4 SIMPLEX
- Position 12 - L5 SIMPLEX
- Position 13 - L6 SIMPLEX
- Position 14 - L7 SIMPLEX
- Position 15 - Special Use 1
- Position 16 - Special Use 2

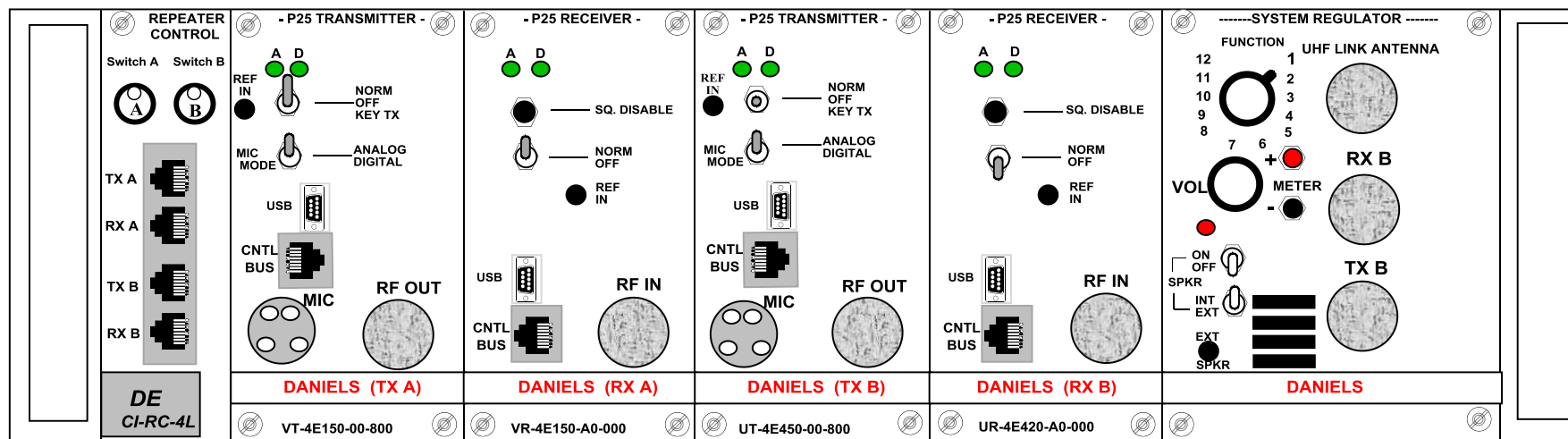


Close-Up View of
Switch A and Switch B on
the AC-3E Card

NIRSC/NIICD Crossband Link Switch Settings (4281 - Crossband Link VHF to UHF)	
Designed by:	NIICD
Drawn by:	NIICD/J. Lopez
Revised Date:	March, 2015



4312 - VHF REPEATER SWITCH SETTINGS (E MODELS ONLY)



4312 - VHF REPEATER CONFIGURATION: (E-MODELS ONLY)

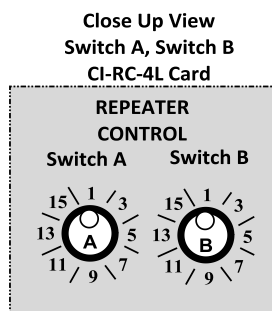
1. Connect the power cable to the batteries using the provided **POLARIZED** fused cable. Once power cable is connected, all modules are active. **(No master power switch)**
2. Keep the power switches on both the **TX A** and **RX A** in the "NORM" position.
3. Keep the power switches on both the **TX B** and **RX B** in the "OFF" position. **(Stand-alone Repeater Configuration - No Linking)**
4. Keep the **MIC MODE** switch on both the **TX A** and **TX B** in the "ANALOG" position.
5. Keep the speaker audio off by switching the **Speaker Switch** on the System Regulator to the "OFF" position.
6. Select the assigned tone by turning **Switch A** knob, located on the top portion of the CI-RC-4L card, to associated position. **(Switch A - Tone Selection)**

Note: Selecting a tone will enable the tone on both the **TX A** and **RX A** modules. The Communications Duty Officer (CDO) will assign the appropriate tone for each incident.

(This is a 16 Position Knob. Position 1 is straight up)

Switch A - Tone Selection List

- Position 1 - Tone 1 - 110.9
- Position 2 - Tone 2 - 123.0
- Position 3 - Tone 3 - 131.8
- Position 4 - Tone 4 - 136.5
- Position 5 - Tone 5 - 146.2
- Position 6 - Tone 6 - 156.7
- Position 7 - Tone 7 - 167.9
- Position 8 - Tone 8 - 103.5
- Position 9 - Tone 9 - 100.0
- Position 10 - Tone 10 - 107.2
- Position 11 - Tone 11 - 114.8
- Position 12 - Tone 12 - 127.3
- Position 13 - Tone 13 - 141.3
- Position 14 - Tone 14 - 151.4
- Position 15 - Tone 15 - 162.2
- Position 16 - No Tone



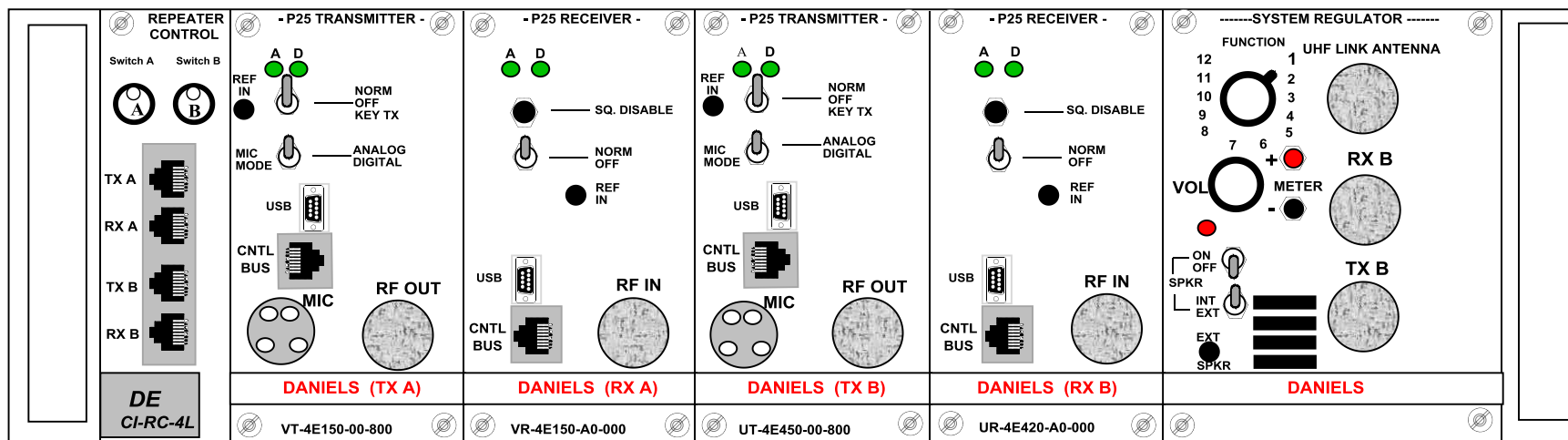
To Enable Audio to Internal Speaker for Troubleshooting:

1. Enable the speaker by switching the Speaker switch located on the System Regulator Module, to the "ON" position.
2. Select the desired receiver audio, A or B, by turning the Function Switch located on the System Regulator, to position 3 for RX Audio A or position 5 for RX audio B.
Note: Select "INT" on the System Regulator Module to enable the audio to the external speaker.

NIRSC/NIICD VHF Repeater Switch Settings (4312- VHF Repeater Configuration E-Models)	
Designed by:	NIICD
Drawn by:	NIICD/J. Lopez
Revised Date:	March, 2015



4312 - VHF REPEATER/LINK SWITCH SETTINGS (E MODELS ONLY)



4312 - VHF REPEATER/LINK CONFIGURATION (E-MODELS ONLY)

1. Connect the power cable to the batteries using provided **POLARIZED** fused cable. Once the power cable is connected, all modules are active. **(No master power switch)**
2. Turn each module "ON" by keeping the switches on the **TX A, RX A, TXB, and RXB** in the "NORM" position.
3. Keep the speaker audio off by switching the **Speaker** Switch on the System Regulator to the "OFF" position.
4. Keep the **MIC MODE** switch on both the **TX A** and **TX B** in the **ANALOG** position.
5. Select assigned tone by turning the **Switch A** knob, located on the top portion of the CI-RC-4L Card, to associated position. **(Switch A - Tone Selection)**
6. Select assigned UHF frequency by turning the **Switch B** knob to associated position. **(Switch B - UHF Link Frequency Selection List)**

Note: Selecting a tone will enable the tone on both TX A and RX A modules. The Communications Duty Officer (CDO) will assign the appropriate tone and UHF frequency for each incident.

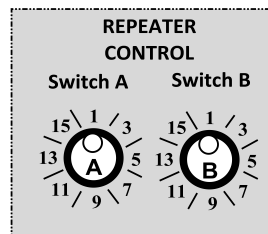
Both Switch A and Switch B is a 16 position rotary switch, with Position 1 being straight up.

Switch A - Tone Selection List

- Position 1 - Tone 1 - 110.9
- Position 2 - Tone 2 - 123
- Position 3 - Tone 3 - 131.8
- Position 4 - Tone 4 - 136.5
- Position 5 - Tone 5 - 146.2
- Position 6 - Tone 6 - 156.7
- Position 7 - Tone 7 - 167.9
- Position 8 - Tone 8 - 103.5
- Position 9 - Tone 9 - 100.0
- Position 10 - Tone 10 - 107.2
- Position 11 - Tone 11 - 114.8
- Position 12 - Tone 12 - 127.3
- Position 13 - Tone 13 - 141.3
- Position 14 - Tone 14 - 151.4
- Position 15 - Tone 15 - 162.2
- Position 16 - No Tone

Switch B - UHF Link Frequency Selection List

- Position 1 - L1 RPTR
- Position 2 - L2 RPTR
- Position 3 - L3 RPTR
- Position 4 - L4 RPTR
- Position 5 - L5 RPTR
- Position 6 - L6 RPTR
- Position 7 - L7 RPTR
- Position 8 - L1 RX SIMPLEX
- Position 9 - L2 RX SIMPLEX
- Position 10 - L3 RX SIMPLEX
- Position 11 - L4 RX SIMPLEX
- Position 12 - L5 RX SIMPLEX
- Position 13 - L6 RX SIMPLEX
- Position 14 - L7 RX SIMPLEX
- Position 15 - Special Use, SIMPLEX
- Position 16 - Special Use, SIMPLEX



Close-Up View
Switch A, Switch B
CI-RC-4L Card

To Enable Audio to Internal Speaker for Troubleshooting:

1. Enable the speaker by switching the Speaker switch located on the System Regulator Module, to the "ON" position.
2. Select the desired receiver audio, A or B, by turning the Function Switch located on the System Regulator, to position 3 for RX Audio A or position 5 for RX audio B.

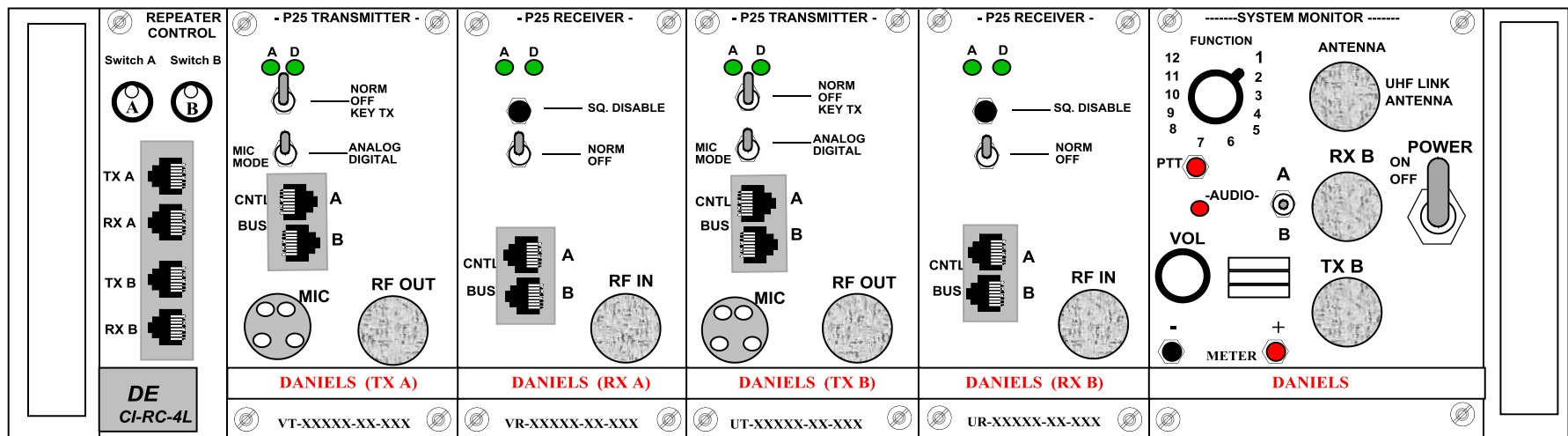
Note: Select "INT" on the System Regulator Module to enable the audio to the external speaker.

NIRSC/NIICD VHF Repeater/Link Switch Settings (4312 - VHF Repeater/Link Configuration E-Models)

Designed by:	NIICD
Drawn by:	NIICD/J. Lopez
Revised Date:	March, 2015



4312 - VHF REPEATER/LINK SWITCH SETTINGS



4312 - VHF REPEATER/LINK CONFIGURATION:

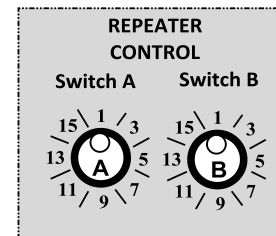
1. Connect the power cable to the batteries using the provided fused **POLARIZED** cable.
 2. Turn the **Power** Switch to the "ON" position on the System Monitor.
 3. Keep the power switches on the **TX A, RX A, TX B, and RX B** in the "NORM" position.
 4. Keep the **A/B Audio Select** Switch on the System Monitor Module at the center position.
 5. Keep the **MIC MODE** switch on both the **TX A** and **TX B** in the **ANALOG** position.
 6. Select the assigned tone by turning the **Switch A** knob, located on the top portion of the CI-RC-4L card, to the associated position. *(Switch A - Tone Selection)*
 7. Select the assigned UHF link frequency by turning the **Switch B** knob to the associated position. *(Switch B - UHF Link Frequency Selection)*
- Note: Selecting a tone will enable the tone on both the TX A and RX A modules. The Communications Duty Officer (CDO) will assign the appropriate tone and UHF frequency.*
- Both Switch A and Switch B are a 16 position rotary switch with position 1 being straight up.*

Switch A - Tone Selection List

- Position 1 - Tone 1 - 110.9
- Position 2 - Tone 2 - 123
- Position 3 - Tone 3 - 131.8
- Position 4 - Tone 4 - 136.5
- Position 5 - Tone 5 - 146.2
- Position 6 - Tone 6 - 156.7
- Position 7 - Tone 7 - 167.9
- Position 8 - Tone 8 - 103.5
- Position 9 - Tone 9 - 100.0
- Position 10 - Tone 10 - 107.2
- Position 11 - Tone 11 - 114.8
- Position 12 - Tone 12 - 127.3
- Position 13 - Tone 13 - 141.3
- Position 14 - Tone 14 - 151.4
- Position 15 - Tone 15 - 162.2
- Position 16 - No Tone

Switch B - UHF Link Frequency Selection List

- Position 1 - L1 RPTR
- Position 2 - L2 RPTR
- Position 3 - L3 RPTR
- Position 4 - L4 RPTR
- Position 5 - L5 RPTR
- Position 6 - L6 RPTR
- Position 7 - L7 RPTR
- Position 8 - L1 RX SIMPLEX
- Position 9 - L2 RX SIMPLEX
- Position 10 - L3 RX SIMPLEX
- Position 11 - L4 RX SIMPLEX
- Position 12 - L5 RX SIMPLEX
- Position 13 - L6 RX SIMPLEX
- Position 14 - L7 RX SIMPLEX
- Position 15 - Special Use, SIMPLEX
- Position 16 - Special Use, SIMPLEX

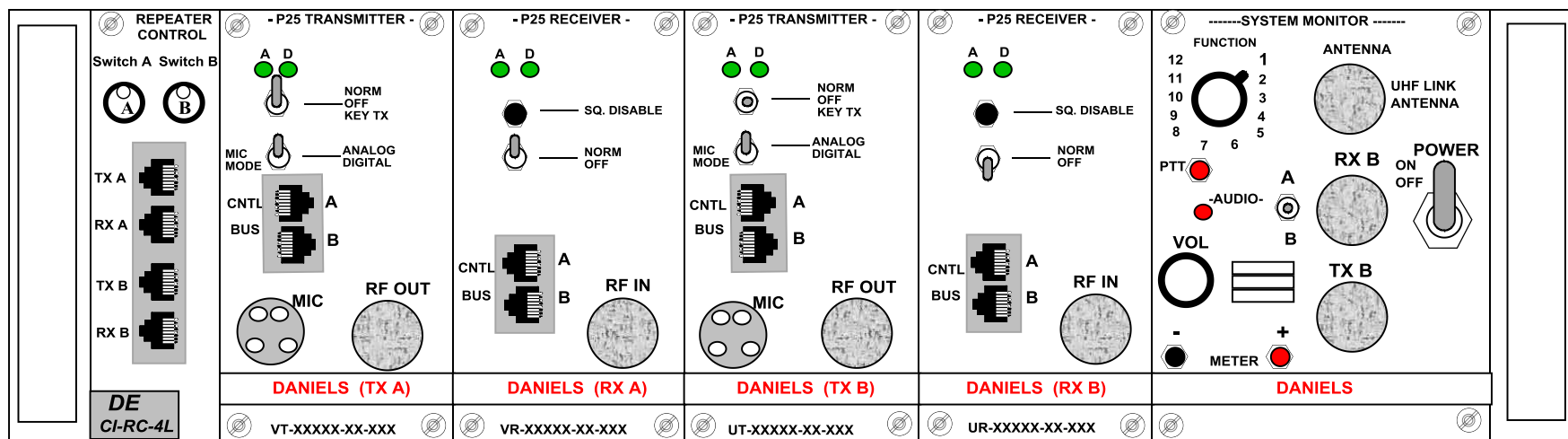


Close-Up View
Switch A, Switch B
CI-RC-4L Card

NIRSC/NIICD VHF Repeater/UHF Link Switch Settings (4312 - VHF Repeater/Link Configuration)	
Designed by:	NIICD
Drawn by:	NIICD/J. Lopez
Revised Date:	March, 2015



4312 - VHF REPEATER SWITCH SETTINGS

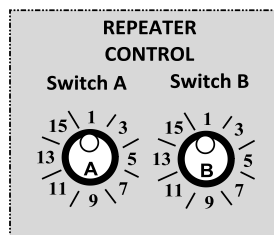


4312 - VHF REPEATER CONFIGURATION:

1. Connect the power cable to the batteries using the provided **POLARIZED** fused cable.
 2. Turn the **Power** Switch to the "**ON**" position on the System Monitor.
 3. Keep the power switches on both the **TX A** and **RX A** in the "**NORM**" position.
 4. Keep the power switches on both the **TX B** and **RX B** in the "**OFF**" position. (*Stand-alone Repeater Configuration- No Linking*)
 5. Keep the **MIC MODE** switch on both **TX A** and **TX B** in the "**ANALOG**" position.
 6. Keep the **A/B Audio Select** Switch on the System Monitor Module at the center position.
 7. Select the assigned tone by turning the **Switch A** knob, located on the top portion of the CI-RC-4L Card, to the associated position. (*Switch A - Tone Selection*)
- Note: Selecting a tone will enable the tone on both the TX A and RX A modules. The Communications Duty Officer (CDO) will assign the appropriate tone for each incident.*
- (This is a 16 Position Knob. Position 1 is straight up)*

Switch A - Tone Selection List

- Position 1 - Tone 1 - 110.9
- Position 2 - Tone 2 - 123.0
- Position 3 - Tone 3 - 131.8
- Position 4 - Tone 4 - 136.5
- Position 5 - Tone 5 - 146.2
- Position 6 - Tone 6 - 156.7
- Position 7 - Tone 7 - 167.9
- Position 8 - Tone 8 - 103.5
- Position 9 - Tone 9 - 100.0
- Position 10 - Tone 10 - 107.2
- Position 11 - Tone 11 - 114.8
- Position 12 - Tone 12 - 127.3
- Position 13 - Tone 13 - 141.3
- Position 14 - Tone 14 - 151.4
- Position 15 - Tone 15 - 162.2
- Position 16 - No Tone

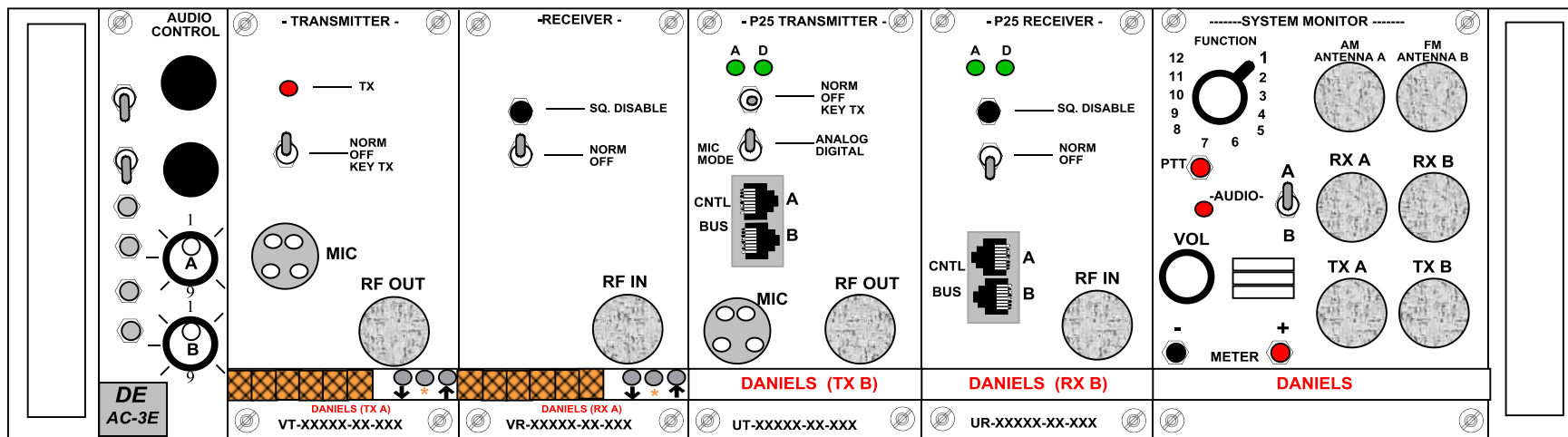


Close-Up View
Switch A, Switch B
CI-RC-4L Card

NIRSC/NIICD VHF Repeater Switch Settings (4312- VHF Repeater Configuration)	
Designed by:	NIICD
Drawn by:	NIICD/J. Lopez
Revised Date:	January, 2015



4370 - AIRCRAFT RADIO/LINK SWITCH SETTINGS (BASE CONFIGURATION)



4370 - AIRCRAFT RADIO/LINK (BASE CONFIGURATION):

1. Keep both **CTCSS** switches located on the AC-3E module, in the "OFF" (down) position.
2. Keep the power switches on both the **TX A** and **RX A** in "NORM" position.
3. Keep the power switches on both the **TX B** and **RX B** in "OFF" position.
4. Keep the **Audio Select** Switch on the System Monitor Module in the "A" position to activate the internal speaker, and place the rotary switch on the System Monitor to **Position # 1**.
5. Select the assigned **AM** frequency for the **TX A** and **RX A** using the 16-position rotary **Switch A** on the AC-3E Module. **(Switch A - AM Frequency Selection)**
Note: For programmable issued FAA AM frequencies, select Channel 16 on the rotary Switch A to manually program the AM TX and RX modules via the front panel.
6. Connect the microphone to the "MIC" jack on the **AM TX A Module**.
Note: An EXTERNAL Speaker may be used by connecting the speaker leads to the System Monitor "METER" jacks. Observe correct polarity. Place rotary switch on the System Monitor to position #1 for EXTERNAL Speaker ONLY.

Manual AM Programming:

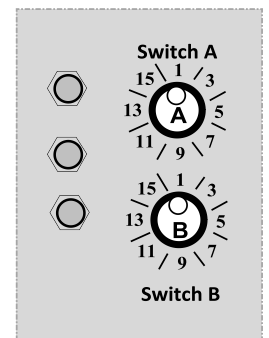
Note: Program an Authorized FAA AM frequency into Channel 16 only.

The Communications Duty Officer (CDO) will assign the appropriate FAA-issued AM Frequency.

1. Turn the rotary **Switch A** (top rotary switch) on the Audio Control Module to Channel 16.
2. Unlock the unit by pressing the " * " button and, before the "Locked" display goes blank, press the "down" button. The display should now show "Unlocked".
3. Wait for the display to blank, then press either the "up" or "down" button to display the current programmed frequency.
4. While the display is showing the frequency, press and hold either the "up" or "down" until the assigned frequency is reached.
5. Lock each unit by pressing the " * " button, and before the "Unlocked" display goes blank, press the "up" button. The display should now show "Locked"

Note: Both the AM transmitter and receiver modules must be individually programmed.

The unit is now ready for base station operation.

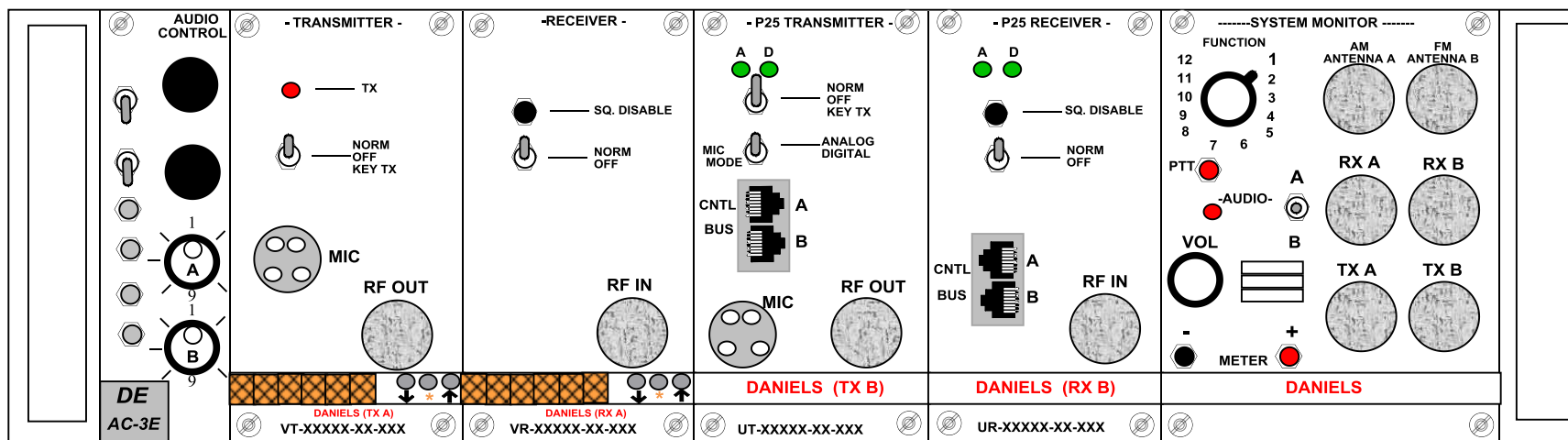


Close-Up View of
Switch A and Switch B on
the AC-3E Card

NIRSC/NIICD Aircraft Link Switch Settings (4370 - Aircraft Radio/Link - Base Configuration)	
Designed by:	NIICD
Drawn by:	NIICD/J. Lopez
Revised Date:	March, 2015



4370 - AIRCRAFT RADIO/LINK SWITCH SETTINGS (LINK CONFIGURATION)



4370 - AIRCRAFT RADIO/LINK: (LINK CONFIGURATION)

1. Keep both CTCSS switches, located on the AC-3 module in the "OFF" position.
2. Keep the power switches on the TX A, RX A, TX B, and RX B in the "NORM" position.
3. Keep the MIC MODE on the TX B in the ANALOG position.
4. Keep the A/B Audio Select Switch on the System Monitor Module at the center position.
5. Select the assigned AM frequency for both TX A and RX A using the 16-position rotary Switch A on the AC-3E Module. **(Switch A - AM Frequency Selection)**
Note: For programmable issued FAA AM frequencies, select Channel 16 on the rotary Switch A to manually program both the AM TX and RX modules.
6. Select the assigned FM UHF link frequency for both the TX B and RX B using the 16-position rotary Switch B on the AC-3E Module. **(Switch B - UHF Link Frequency Selection)**
Note: The Communications Duty Officer (CDO) will assign the FM UHF Link frequency.

Manual AM Programming:

Note: Program an authorized FAA AM frequency into Channel 16 only.

The Communications Duty Officer (CDO) will assign the appropriate FAA-issued AM Frequency.

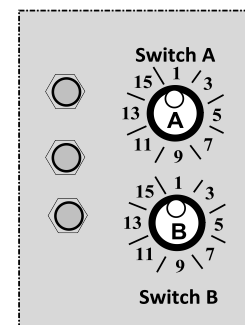
1. Turn the rotary Switch A (top rotary switch) on the Audio Control Module to Channel 16.
2. Unlock the unit by pressing the " * " button and, before the "Locked" display goes blank, press the "down" button. The display should now show "Unlocked".
3. Wait for the display to blank, then press either the "up" or "down" button to display the current programmed frequency.
4. While the display is showing the frequency, press and hold either the "up" or "down" until the desired frequency is reached.
5. Lock each unit by pressing the " * " button and before the "Unlocked" display goes blank, press the "up" button.

Note: The AM transmitter and AM receiver modules must be individually programmed.

The unit is now ready for link operation.

Switch B - UHF Frequency List **(The CDO will assign UHF Link Frequency)**

Position 1 - A/C 1 Simplex	Position 8 - A/C 8 Simplex	Position 15 - A/C 15 L11 Simplex
Position 2 - A/C 2 Simplex	Position 9 - A/C 9 L8 Simplex	Position 16 - A/C 16 L11 Rptr
Position 3 - A/C 3 Simplex	Position 10 - A/C 10 L8 RPTR	
Position 4 - A/C 4 Simplex	Position 11 - A/C 11 L9 Simplex	
Position 5 - A/C 5 Simplex	Position 12 - A/C 12 L9 RPTR	
Position 6 - A/C 6 Simplex	Position 13 - A/C 13 L10 Simplex	
Position 7 - A/C 7 Simplex	Position 14 - A/C 14 L10 RPTR	



Close-Up View of
Switch A and Switch B on
the AC-3E Card

NIRSC/NIICD Aircraft Link Switch Settings (4370 - Aircraft Radio/Link - Link Configuration)	
Designed by:	NIICD
Drawn by:	NIICD/J. Lopez
Revised Date:	March, 2015